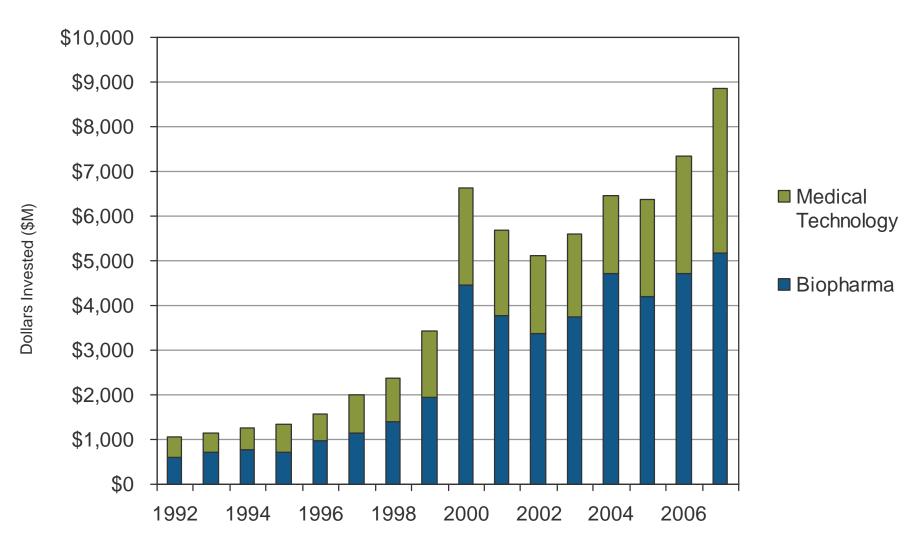
### AltaPartners

### **Lifesciences Sector Overview**



# **VC Funding for Life Sciences**



Source: Dow Jones VentureSource

### **Drug Development Scorecard (1/06-12/07)**

Source	FDA approvals		
Biotech industry	47 (45%)		
Biotech-Pharma alliances	16 (16%)		
Acquisitions/licenses by Pharma	4 (4%)		
Pharma industry	36 (35%)		
Total	103		

## **IPO Hurdle Will Remain High**

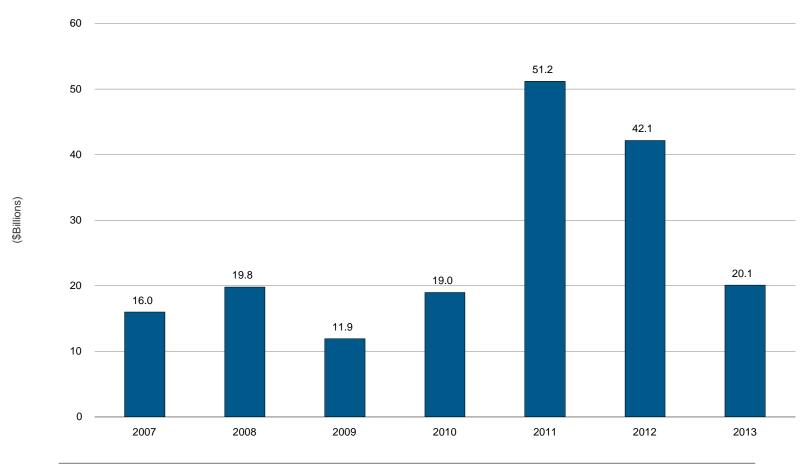
- Select companies will go public
  - Revenue stories
  - Later stage (Phase II/Phase III)
- Healthy pipeline of secondary programs
- Stellar management teams
- Blockbuster partnerships can matter
  - Provide validation
  - Non-dilutive capital stretches development dollars
  - Company must maintain some commercial rights
- Markets are in turmoil. IPOs will be few and far between in the near term

#### Pharma Position Continues to Weaken

- Reality of patent expirations is being felt
- Building greater reliance on biotech to drive growth and shore up slumping bottom line

#### **Near Term Patent Cliff**

Large Cap Pharma Revenue Lost to Patent Expirations by Year (1)

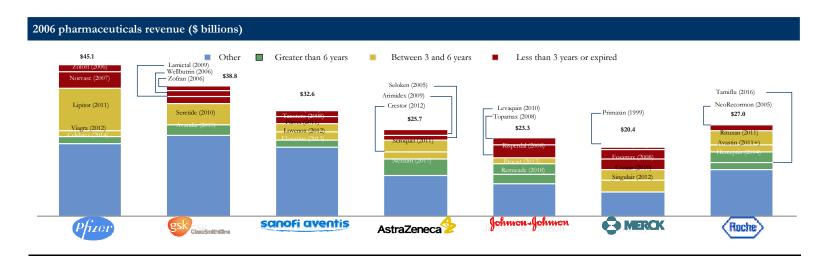


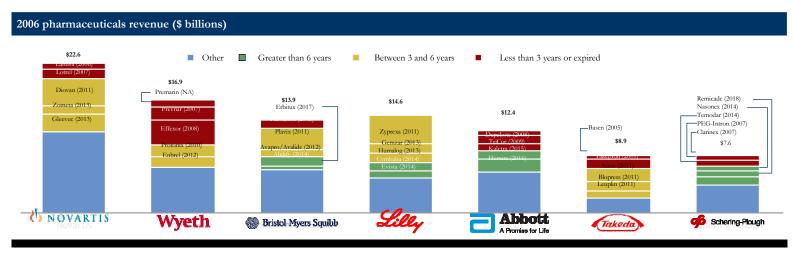
Source EvaluatePharma

Note

<sup>1.</sup> Includes Abbott, AstraZeneca, Bristol-Myers Squibb, Eli Lilly, GlaxoSmithKline, J&J, Merck, Novartis, Pfizer, Roche, Sanofi, Schering-Plough, and Wyeth. Revenue lost calculated as last full year of estimated sales prior to scheduled expiration

## Big Cap Pharma Losing Blockbusters



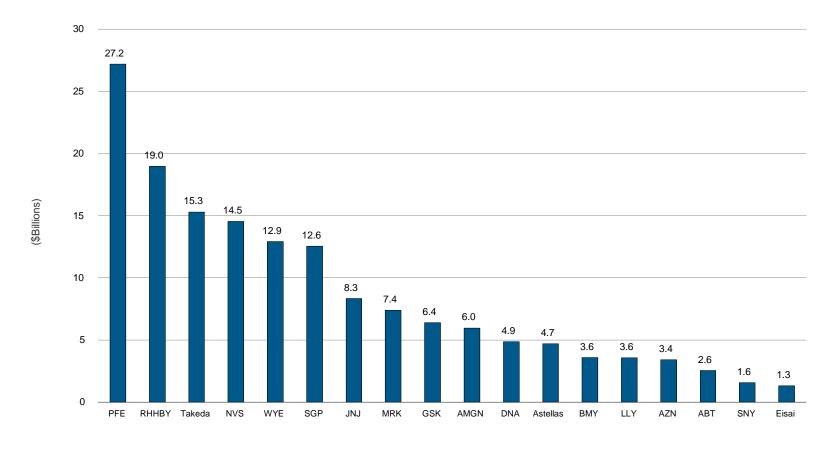


Source: Morgan Stanley analysis

Note: Red, yellow and green bars highlight top five products by revenue.

# Pharma Cash Positions are Strong

#### Cash & Equivalents (1)



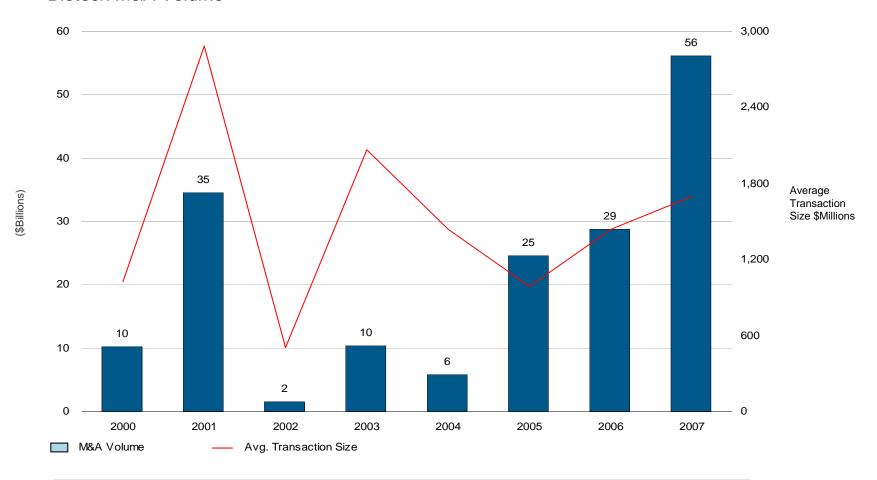
Source: Morgan Stanley

Note

1. Most recent company filing as of 3Q07

#### Biotech M&A on the Rise Since 2005

#### Biotech M&A Volume



Source: Morgan Stanley, SDC as of 12/31/07

Not

1. Biotech M&A volume was up 17% in 2006 compared to 2005 and nearly doubled in 2007

#### Recent Private Biotech M&A - Phase I

Deal Deal Deal Deal Deal Deal Deal Deal	Due two continues will extend on Community
Date Acquirer Target value Lead product  03/03/08 Undis. ■ SNX-5422 / Pl	Pre-transaction milestones Comments  hase I December 2007 - Initiation of Strengthens Pfizer's oncology pipeline
Osros/os Pfirer Serenex Olidis. = 310x 3422 / 10 / Oncology	second Phase I trial for SNX-  5422  with clinical candidate and extensive small molecule library
11/26/07 astellas Agensys• \$537¹ ■ AGS-PSCA / P	
Leading Light for Life - ID / Prostate  Cancer	target antigens monoclonal antibody capabilities  Product development and Subsequent to Regeneron and
	research agreements with Genentech, MRK, Sanofi-aventis and Seattle Genetics  MorphoSys collaborations, both of which focus on antibody R&D
10/05/07 <b>Wyeth Haptogen</b> Undis. Discovery for protein	<ul> <li>Haptomics approach, novel display platform (DBDX) and</li> <li>Haptogen has developed a number of technologies that allow for the</li> </ul>
therapeutics	unique 'Forced Epitope discovery and optimization of protein
	Selection' methodology allow therapeutics with significantly improved profiles
09/24/07 430 ■ Angiocept (CT 322) / Phase	
Bristol-Nyers Squibb Company Oncology	322) Subsequent to 2007 WW collaboration
12/8/06 gsk classeScright/Girm d⊕mantis 454 ■ Domain antib	, , , ,
(dAb) platform	m oncology programs in pre- applicability and underscores GSK's clinical phases prior to investment in biopharmaceuticals acquisition
10/29/06 AMGEN Avidia 380³ ■ C326 / Phase	
Crohn's disea	ise May 2006 - Raised \$44 million in most attractive protein-based
	Series C financing to advance technologies currently under development of lead products development
5/9/06	Jan. 2006 - Announced the first Complements Merck's capabilities in
protein	production of monoclonal yeast expression technology, as shown antibodies with human sugar by the production of the virus-like
technology	structures in yeast particles in GARDASIL, an HPV vaccine
5/3/06 biogen idec conforma 250 <sup>3</sup> CNF1010 / Ph	nase I Aug. 2004 - Initiated two Phase I Broadens Biogen Idec's therapeutic opportunities in the cancer field
/ Cancer	patients with advanced solid
Source: Company filings, equity research. JP Morgan analysis	tumors and CML  Oct. 2005 - Initiated Phase I
<sup>1</sup> Includes \$150 million in milestone payments	trial for CNF2024 in B-Cell CLL

#### Recent Private Biotech M&A - Phase II

Date	Acquirer	Target	Deal value	Lead product	Pre-transaction milestones	Comments
06/06/07	AMGEN	ALANTOS Phaentocoutizals	300	■ ALS 2-0426 / Phase II / Type II diabetes	May 2007 - Initiated Phase IIa clinical trial for ALS 2-0426 in type II diabetes with ex-US partner, Servier	<ul> <li>Adds clinical stage, orally administered DPP-IV inhibitor to Amgen's portfolio of therapeutics for metabolic diseases</li> </ul>
06/04/07	AMGEN	<b></b> ≸ILYPSA	420	■ ILY101 / Phase II / Hyperphosphatemi a	<ul> <li>February 2007 - Completed enrollment for Phase II trials for ILY101 in hemodialysis patients</li> <li>April 2006 - Licensed Japanese marketing rights to Astellas</li> </ul>	<ul> <li>Strengthens Amgen's nephrology portfolio</li> <li>Adds multiple preclinical matrix metalloproteinase targeting osteoarthritis candidates</li> </ul>
03/21/07	Eisai	( morphotek	325	MORAb 003 / Phase II / Ovarian cancer	<ul> <li>Phase I/II trials underway for MORAb 003</li> <li>Second product MORAb 009 in Phase I trials for pancreatic cancer</li> </ul>	Provides Eisai with monoclonal antibody capability
2/01/07	AstraZeneca	ARR⊗ W	150	■ A-831 / Phase II / Hepatitis C	<ul> <li>November 2006 - A-831 enters         Phase I; A-689 second             generation NS5a inhibitor in             preclinical studies     </li> <li>Phase II trials underway for         RSV604 (partnered with             Novartis)     </li> </ul>	Strengthens AZ's portfolio of anti- infectives, now a key focus area
12/14/06	A Forest	CEREXA	\$580 <sup>1</sup>	<ul><li>Ceftaroline acetate / Phase II / broad-spectrum antibiotic</li></ul>	<ul> <li>September 2006 - Announces positive Phase II results</li> <li>March 2006 - FDA grants fast track status for ceftaroline acetate</li> </ul>	<ul> <li>Operating leverage from using Forest's existing hospital-based salesforce</li> <li>Forest to explore options for commercialization outside US</li> </ul>
11/15/0	PHARMION	Cabrellis PHARMACEUTICALS	100 <sup>2</sup>	■ Amrubicin / Phase II / NSCLC/SCLC	July 2006 - Reported Phase II results demonstrating clinical efficacy both as single agent and in combination with cisplatin	Acquisition helps expand Pharmion's product portfolio with an advanced stage of oncology product with U.S. and potentially EU rights

Source: Company filings, equity research. JP Morgan analysis

<sup>1</sup> Includes \$150 million in milestone payments

## Recent Private Biotech M&A – Later Stage

#### Phase III

Date 07/25/07	Acquirer MERCK	Target <b>NovaCardi</b>	Deal value 350	Lead product  KW-3902 / Phase III / Acute Congestive Heart Failure	Pre-transaction milestones  ■ June 2007 - Positive pilot Phase III results of KW-3902 for Acute Congestive Heart Failure	Comments  ■ Adds clinical stage compound to Merck's portfolio of therapeutics for cardiovascular diseases
7/19/06	GILEAD Abstrace Theoperation trapeurs time.	C  R U S	365	■ Cayston / Phase III / Cystic fibrosis	■ Jun. 2005 - Reported Phase II results showing Cayston was well tolerated and statistically significant improvements in Pseudomonas aeruginosa and FEV <sub>1</sub>	Acquisition helps fill a gap in Gilead's drug development pipeline

#### **NDA/Marketed Product**

Date	Acquirer	Target	Deal value	Lead product	Pre-transaction milestones	Comments
11/21/07	gsk <sub>Glasso</sub> s midinklina	Relian	t Undis.	<ul><li>Discovery for protein therapeutics</li></ul>	<ul> <li>Haptomics approach, novel display platform (DBDX) and unique 'Forced Epitope Selection' methodology allow discovery of new lead antibodies</li> </ul>	Haptogen has developed a number of technologies that allow for the discovery and optimization of protein therapeutics with significantly improved profiles
01/09/07	ACTELION	CŌTHERI	× \$420	<ul><li>Ventavis/commerc ialized/cardiovasc ular diease</li></ul>	<ul><li>Early stage pipeline of novel therapeutics</li><li>\$100 million run rate for Ventavis</li></ul>	<ul> <li>Synergistic product with Actelion's Tracleer product</li> <li>Provided US operations for European company</li> </ul>

Source: Company filings, equity research. JP Morgan analysis <sup>1</sup>Includes \$150 million in milestone payments

#### Trends in 2007 M&A

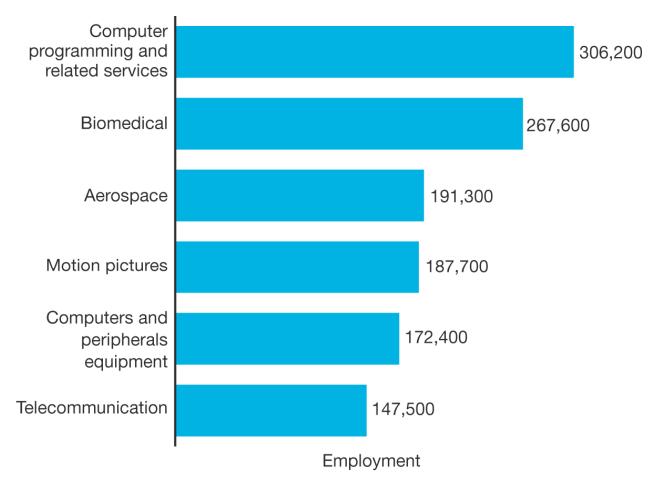
- High prices paid for early stage programs
- Big Biotech becoming a large driver of M&A activity
- Japanese pharma becoming more aggressive
- Pharma is partnering earlier to get options on promising assets
- Partnering continues to influence M&A
  - Partnering discussions shift to pre-emptive M&A
  - Pre-existing relationships often precursor to M&A
- Biologics and therapeutic platforms continue to be drivers

## California Lifesciences Industry Highlights

- Total biomedical companies
- Total estimated revenue
- Total estimated employment
- Overall biomedical average wages
- Total NIH grants awarded
- Total estimated VC investment
- Estimated private investment in R&D

- 2,700
- \$72.8 billion
- 267,600
- \$71,300
- \$3.3 billion
- \$3.2 billion
- \$27 billion

## Lifescienes: Turning Innovation into Jobs

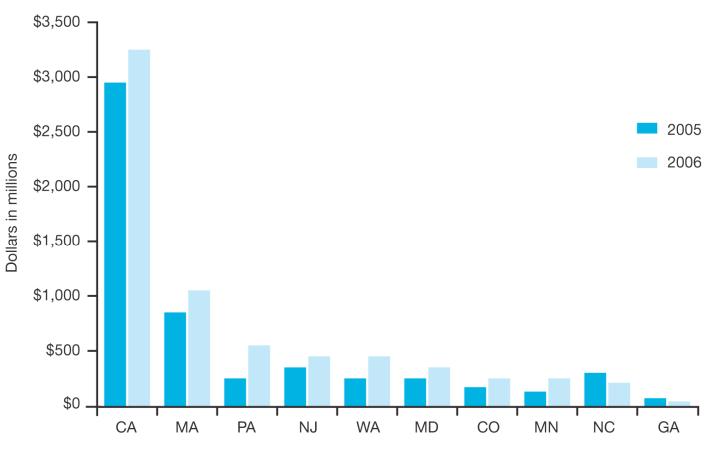


Source: California Employment Development Division, Bureau of Labor Statistics.

### Investing in R&D – Jobs and Infrastructure

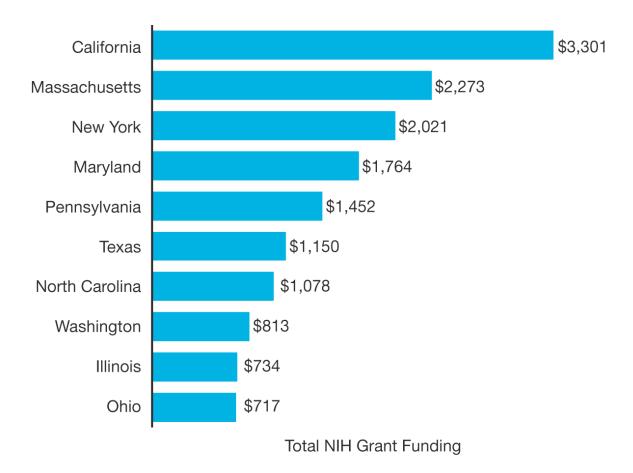
Public biomedical companies that are doing business in California invested an estimated \$27 billion in the research and development of new products for unmet medical needs in 2006.

# **Venture Capital Investment**



Source: PricewaterhouseCoopers and National Venture Capital Association, *Money Tree Report*, 2007. Data from Thomson Financial.

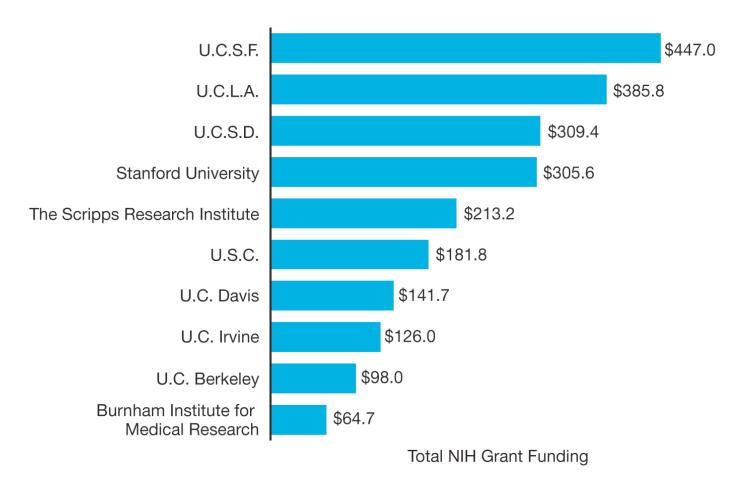
# California Leading Nation - NIH Grant Funding



Source: National Institutes of Health, Office of Extramural Research

Slide: CHI & PwC

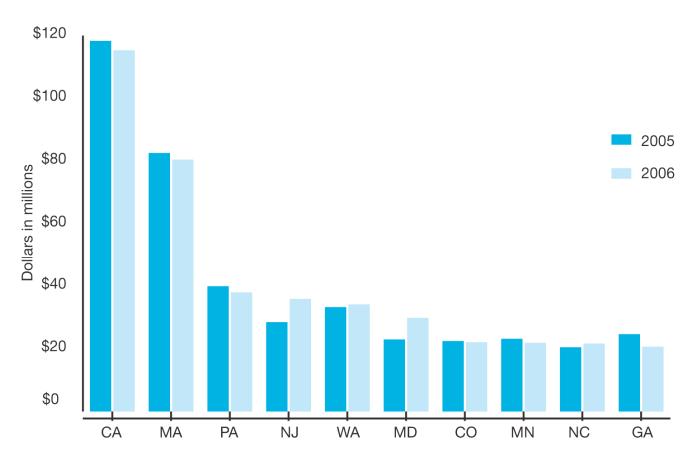
#### California Universities/Institutes – Fueling Innovation



Source: National Institutes of Health, Office of Extramural Research

Slide: CHI & PwC

#### **California First in Innovation**



Source: National Institutes of Health, Office of Extramural Research

Top 10 recipients of NIH SBIR and STTR Funds

Slide: CHI & PwC

#### **CA Challenge - Biopharmaceutical Manufacturing**

- 61% of firms currently manufacture products in California
- 35% have at least some manufacturing in other states
- 39% have manufacturing capacities in other countries
- 78% of firms expected to expand manufacturing out-of-state in the next two years

## Maintaining California's Leadership

- Funding advanced education in life sciences disciplines
  - Preparing adequate human capital
- Provide tax and investment incentives
- Infrastructure improvements
- Accelerating/incenting new business formation
- Reforming and streamlining Federal, State, and local regulations